

IN THE CLAIMS:

Claim 1 (currently amended): A valve seal structure for a valve mechanism having a main body connected to flanges and a valve plate to open and close a flow channel of said main body, wherein a metal seat ring to seal a periphery of said flow channel is prepared separately from said main body and is assembled to said main body at the periphery of said flow channel in a detachable manner, said metal ring is assembled at the periphery of the flow channel by a set ring, and said set ring is interposed between said main body and said flanges.

Claim 2 (currently amended): A valve seal structure claimed in Claim 1, wherein said metal seat ring is assembled at the periphery of said flow channel by a set ring and elastomeric ring sheets are provided respectively between said metal seat ring and said main body and between said metal seat ring and said set ring as sealing means.

Claim 3 (currently amended): A valve seal structure for a knife gate valve having a main body connected to flanges and a valve plate to open and close a flow channel of said main body, wherein a metal seat ring to seal a periphery of said flow channel is prepared separately from said main body and is assembled to said main body at the periphery of said flow channel in a detachable manner by a set ring, [[and]] elastomeric ring sheets are provided respectively between said metal seat ring and said main body and between said metal seat ring and said set ring as sealing means, and said set ring is interposed between said main body and said flanges.

Claim 4 (currently amended): A valve seal structure for a valve mechanism comprising a main body connected to flanges, a valve plate to open and close a flow channel of said main body, a metal seat ring prepared separately from said main body and for sealing a periphery of said flow channel, and a set ring to assemble said metal seat ring to said main body at the periphery of said flow channel in a detachable manner, said main body being provided with a step-like portion having an enlarged inner diameter at the inner peripheral surface in the vicinity of a secondary side of the flow channel, said step-like portion having a first vertical wall near a primary side of the flow channel and a second vertical wall at the secondary side, said metal seat ring and said set ring having a radially outwardly projecting flange portion respectively, a first elastomeric ring sheet being interposed between said flange portion of the metal seat ring as a sealing means and said first vertical wall and a second elastomeric ring sheet being interposed between said flange portion of the metal seat ring and said set ring as a sealing means, and said

flange portion of said set ring being assembled so as to contact with be interposed between said second vertical wall and said flanges.

Claim 5 (original). A valve seal structure for a valve mechanism claimed in Claim 4, wherein a seal packing is provided at a space formed between a cutaway corner of the flange portion of the set ring and the main body to seal the boundary between the main body and the set ring.